

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application.

Listings of Claims:

1. (Canceled)

2.(Canceled)

3.(Currently Amended) The ADSL modem apparatus according to claim 1,
further comprising: An ADSL modem apparatus, comprising:
an exchange unit that transmits and receives a REVERB signal according to one
of the ITU-T standard G.992.1 and G.992.2;
an estimation unit that estimates a communication distance to an opposing ADSL
modem apparatus based upon a reception level of the REVERB signal; and
a communication unit that communicates by concentrating a signal energy into a low frequency band, the signal energy being assigned to a transmission signal according to the communication distance estimated by said estimation unit.

4.(Previously Presented) The ADSL modem apparatus according to claim 3,
wherein said communication unit minimizes a signal energy assigned to a high frequency band and increases the signal energy assigned to the low frequency band when the communication distance to the opposing ADSL modem apparatus is increased.

5.(Canceled)

6.(Canceled)

7.(Previously Presented) A communication method for an ADSL modem apparatus, comprising:

receiving a REVERB signal according to one of ITU-T standard G.992.1 and G.992.2;

estimating a communication distance to an opposing ADSL modem apparatus based upon a reception level of the REVERB signal; and

concentrating a signal energy into a low frequency band, the signal energy being assigned to a transmission signal according to the estimated communication distance.

8.(Previously Presented) The communication method for an ADSL modem apparatus according to claim 7, further comprising:

minimizing a signal energy assigned to a high frequency band and increasing the signal energy assigned to the low frequency band when the communication distance to the opposing ADSL modem apparatus is increased.

9.(Currently Amended) A modem apparatus, comprising:

an exchanger that transmits a REVERB signal as part of a modem training signal;
and

an estimator that estimates a distance between an opposing modem apparatus and the modem apparatus according to a reception level of the REVERB signal

wherein the exchanger transmits a data signal according to a power spectrum, the power spectrum being determined on the basis of the distance.

10.(Canceled)

11.(Canceled)